IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A computer-readable memory medium comprising program instructions executable to:

display source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code, wherein the source code includes a first function call that takes a first parameter;

dynamically determine a plurality of valid parameter values for the first parameter of the first function call;

display a graphical user interface for selecting a parameter value for the first parameter of the first function call, wherein the graphical user interface for selecting the parameter value visually indicates the plurality of valid parameter values, wherein the graphical user interface for selecting the parameter value is displayed concurrently with the source code; while a user is editing source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code;

receive user input to the graphical user interface to select a first parameter value from the plurality of valid parameter values; and

automatically include the first parameter value in the first function call in the source code of the software program in response to the user input selecting the first parameter value, wherein automatically including the first parameter value in the first function call comprises automatically updating the displayed source code to display the first parameter value within the first function call, wherein said automatically including the first parameter value in the source code of the software program first function call aids the a user in editing the source code first function call.

2. (Previously Presented) The computer-readable memory medium of claim 1,

3

wherein said dynamically determining the plurality of valid parameter values comprises dynamically determining the plurality of valid parameter values based on a configuration of a computer system.

3.   (Previously Presented) The computer-readable memory medium of claim 2,

wherein said dynamically determining the plurality of valid parameter values based on the configuration of the computer system comprises dynamically determining the plurality of valid parameter values based on a hardware configuration of the computer system.

4.   (Previously Presented) The computer-readable memory medium of claim 3,

wherein said dynamically determining the plurality of valid parameter values based on the hardware configuration of the computer system comprises programmatically examining information regarding the hardware configuration of the computer system.

5.   (Previously Presented) The computer-readable memory medium of claim 3,

wherein said dynamically determining the plurality of valid parameter values based on the hardware configuration of the computer system comprises programmatically querying software associated with one or more hardware devices coupled to the computer system.

6.   (Previously Presented) The computer-readable memory medium of claim 2,

wherein said dynamically determining the plurality of valid parameter values based on the configuration of the computer system comprises dynamically determining a first plurality of valid parameter values;

wherein the program instructions are executable to dynamically determine a second plurality of valid parameter values based on the configuration of the computer system after the configuration of the computer system has been changed.

7.   (Currently Amended) The computer-readable memory medium of claim 1,

wherein said dynamically determining the plurality of valid parameter values comprises dynamically determining one or more parameter values corresponding to hardware devices coupled to a computer system;

wherein the first parameter value corresponds to a first hardware device;

wherein said automatically including the first parameter value in ~~source code of the software program~~ the first function call comprises automatically configuring ~~source code of the software program~~ the first function call with a reference to the first hardware device.

8.   (Currently Amended) The computer-readable memory medium of claim 1,

wherein said dynamically determining the plurality of valid parameter values comprises dynamically determining one or more parameter values corresponding to resources of one or more hardware devices;

wherein the first parameter value corresponds to a first resource of a first hardware device;

wherein said automatically including the first parameter value in ~~source code of the software program~~ the first function call comprises automatically configuring ~~source code of the software program~~ the first function call with a reference to the first resource of the first hardware device.

9.   (Currently Amended) The computer-readable memory medium of claim 1,

wherein said dynamically determining the plurality of valid parameter values comprises dynamically determining one or more GPIB resources;

wherein the first parameter value comprises a first GPIB resource;

wherein said automatically including the first parameter value in ~~source code of the software program~~ the first function call comprises automatically configuring ~~source~~

5

~~code of the software program~~ the first function call with a reference to the first GPIB resource.

10.   (Currently Amended) The computer-readable memory medium of claim 1, wherein said dynamically determining the plurality of valid parameter values comprises dynamically determining one or more Visa resources;

wherein the first parameter value comprises a first Visa resource;

wherein said automatically including the first parameter value in ~~source code of the software program~~ the first function call comprises automatically configuring ~~source code of the software program~~ the first function call with a reference to the first Visa resource.

11.   (Currently Amended) The computer-readable memory medium of claim 1, wherein said dynamically determining the plurality of valid parameter values comprises dynamically determining one or more DAQ resources;

wherein the first parameter value comprises a first DAQ resource;

wherein said automatically including the first parameter value in ~~source code of the software program~~ the first function call comprises automatically configuring ~~source code of the software program~~ the first function call with a reference to the first DAQ resource.

12.   (Currently Amended) The computer-readable memory medium of claim 1, wherein said dynamically determining the plurality of valid parameter values comprises dynamically determining one or more universal resource locators (URLs);

wherein the first parameter value comprises a first URL;

wherein said automatically including the first parameter value in ~~source code of~~ ~~the software program~~ the first function call comprises automatically configuring ~~source~~ ~~code of the software program~~ the first function call with a reference to the first URL.

13.   (Previously Presented) The computer-readable memory medium of claim 1, further comprising program instructions executable to:

6

receive user input specifying filtering criteria for the parameter values;

wherein the graphical user interface visually indicates only a subset of the valid parameter values, wherein the subset is determined based on the specified filtering criteria.

14.   (Previously Presented) The computer-readable memory medium of claim 1, further comprising program instructions executable to:

receive user input requesting to display the graphical user interface for selecting the parameter value;

wherein said displaying the graphical user interface is performed in response to the user input requesting to display the graphical user interface.

15-19. (Canceled)

20.   (Currently Amended) The computer-readable memory medium of claim 1, wherein the source code is displayed in a first window;

wherein said displaying the graphical user interface comprises displaying the graphical user interface in a separate window apart from the ~~software program~~ first window.

21.   (Currently Amended) The computer-readable memory medium of claim 1, wherein the source code is displayed in a first portion of a first window;

wherein said displaying the graphical user interface comprises displaying the graphical user interface in a second portion of ~~a program~~ the first window ~~for the software program~~.

22.   (Previously Presented) The computer-readable memory medium of claim 1,

wherein the graphical user interface displays the plurality of valid parameter values as a list;

wherein said receiving user input to the graphical user interface to select the first parameter value comprises receiving user input to the graphical user interface to select the first parameter value from the list.

23.   (Currently Amended) The computer-readable memory medium of claim 1,

wherein said dynamically determining the plurality of valid parameter values includes dynamically determining one or more property values;

wherein said receiving user input to the graphical user interface to select the first parameter value comprises receiving user input to the graphical user interface to select a first property value;

wherein the first property value is automatically included in the ~~software program~~ <u>first function call</u> in response to the user input selecting the first property value.

24.   (Currently Amended) A computer-readable memory medium comprising program instructions executable to:

<u>display source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code, wherein the source code includes a first method call that takes a first parameter;</u>

determine a plurality of parameter values <u>for the first parameter of the first method call</u> based on a hardware configuration of a computer system;

display a graphical user interface for selecting a parameter value <u>for the first parameter of the first method call</u>, wherein the graphical user interface <u>for selecting the parameter value</u> visually indicates the plurality of parameter values, wherein the graphical user interface <u>for selecting the parameter value</u> is displayed <u>concurrently with the source code;</u> ~~while a user is editing source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code;~~

receive user input to the graphical user interface to select a first parameter value from the plurality of parameter values; and

automatically include the first parameter value in the <u>first method call in the</u> source code of the software program in response to the user input selecting the first

8

parameter value, <u>wherein automatically including the first parameter value in the first method call comprises automatically updating the displayed source code to display the first parameter value within the first method call,</u> wherein ~~said~~ automatically including the first parameter value in the ~~source code of the software program~~ <u>first method call</u> aids ~~the~~ <u>a</u> user in editing the ~~source code~~ <u>first method call</u>.

     25.   (Currently Amended) A computer-readable memory medium comprising program instructions executable to:

     <u>display source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code, wherein the source code includes a first function call that takes a first parameter;</u>

     determine a plurality of resources of one or more measurement devices coupled to a computer system;

     display a graphical user interface visually indicating a plurality of parameter values <u>for the first parameter of the first function call</u>, wherein each parameter value corresponds to one of the resources, wherein the graphical user interface is displayed <u>concurrently with the source code;</u> ~~while a user is editing source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code;~~

     receive user input to the graphical user interface to select a first parameter value from the plurality of parameter values; and

     automatically include the first parameter value in the <u>first function call in the</u> source code of the software program in response to the user input selecting the first parameter value, <u>wherein automatically including the first parameter value in the first function call comprises automatically updating the displayed source code to display the first parameter value within the first function call,</u> wherein ~~said~~ automatically including the first parameter value in the ~~source code of the software program~~ <u>first function call</u> aids ~~the~~ <u>a</u> user in editing the ~~source code~~ <u>first function call</u>.

     26.   (Currently Amended) A system comprising:

     a processor;

a memory coupled to the processor, wherein the memory stores program instructions;

wherein the ~~processor is operable to execute the~~ program instructions stored in the memory <u>are executable by the processor</u> to:

<u>display source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code, wherein the source code includes a first function call that takes a first parameter;</u>

dynamically determine a plurality of valid parameter values <u>for the first parameter of the first function call</u>;

display a graphical user interface for selecting a parameter value <u>for the first parameter of the first function call</u>, wherein the graphical user interface <u>for selecting the parameter value</u> visually indicates the plurality of valid parameter values, wherein the graphical user interface <u>for selecting the parameter value</u> is displayed <u>concurrently with the source code;</u> ~~while a user is editing source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code;~~

receive user input to the graphical user interface to select a first parameter value from the plurality of valid parameter values; and

automatically include the first parameter value in the <u>first function call in the</u> source code of the software program in response to the user input selecting the first parameter value, <u>wherein automatically including the first parameter value in the first function call comprises automatically updating the displayed source code to display the first parameter value within the first function call,</u> wherein ~~said~~ automatically including the first parameter value in the ~~source code of the software program~~ <u>first function call</u> aids ~~the~~ <u>a</u> user in editing the ~~source code~~ <u>first function call</u>.

27. (Currently Amended) A method for modifying source code of a software program, the method comprising:

<u>display source code of a software program, wherein the source code is written in a text-based programming language that can be compiled into executable code, wherein the source code includes a first function call that takes a first parameter;</u>

dynamically determining a plurality of valid parameter values <u>for the first parameter of the first function call</u>;

displaying a graphical user interface for selecting a parameter value <u>for the first parameter of the first function call</u>, wherein the graphical user interface <u>for selecting the parameter value</u> visually indicates the plurality of valid parameter values, wherein the graphical user interface <u>for selecting the parameter value</u> is displayed <u>concurrently with the source code;</u> ~~while a user is editing the source code of the software program, wherein the source code is written in a text-based programming language that can be compiled into executable code;~~

receiving user input to the graphical user interface to select a first parameter value from the plurality of valid parameter values; and

automatically including the first parameter value in the <u>first function call in the</u> source code of the software program in response to the user input selecting the first parameter value, <u>wherein automatically including the first parameter value in the first function call comprises automatically updating the displayed source code to display the first parameter value within the first function call,</u> wherein ~~said~~ automatically including the first parameter value in the ~~source code of the software program~~ <u>first function call</u> aids ~~the~~ <u>a</u> user in editing the ~~source code~~ <u>first function call</u>.

28-30. (Canceled)

31.   (New) A computer-readable memory medium comprising program instructions executable to:

display a block diagram of a graphical program, wherein the block diagram includes a plurality of interconnected nodes visually indicating functionality of the graphical program, wherein the block diagram can be compiled into executable code, wherein the plurality of interconnected nodes includes a first node that takes a first input parameter;

dynamically determine a plurality of valid parameter values for the first input parameter of the first node;

display a graphical user interface for selecting a parameter value for the first input parameter of the first node, wherein the graphical user interface for selecting the parameter value visually indicates the plurality of valid parameter values, wherein the graphical user interface for selecting the parameter value is displayed concurrently with the block diagram;

receive user input to the graphical user interface to select a first parameter value from the plurality of valid parameter values; and

automatically configure the first node with the first parameter value in response to the user input selecting the first parameter value, wherein automatically configuring the first node with the first parameter value comprises automatically updating the displayed block diagram to visually indicate that the first node receives the first parameter value as input.

32.   (New) The computer-readable memory medium of claim 31,

wherein automatically configuring the first node with the first parameter value comprises automatically wiring the first parameter value to an input terminal of the first node;

wherein updating the block diagram comprises displaying a wire connecting the first parameter value to the input terminal of the first node.